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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,735	01/25/2002	Raymond Zeisz JR.	12143.003U1	9910
23859	7590	12/06/2005	EXAMINER	
NEEDLE & ROSENBERG, P.C.			YANG, LINA	
SUITE 1000			ART UNIT	
999 PEACHTREE STREET			PAPER NUMBER	
ATLANTA, GA 30309-3915			2665	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,735

Applicant(s)

ZEISZ ET AL.

Examiner

Lina Yang

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/05/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Applicant is advised that should claim 24 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 10 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Levay et al. (U.S. Patent No. 6,480,892 B1).

Regarding claim 1, Levay teaches a method for selectively discarding packets at a packet switch arranged to handle packet traffic in a network, the method comprising the steps of:

- (a) building an index for an arriving packet (col. 4 lines 43-48);
- (b) accessing a location in a memory array (rule table) according to the index to read at least a limit value from the location (col. 4 lines 49-53);
- (c) comparing the limit value (such as "the first ten packets in a sequence are discarded and the next ninety are allowed" for a desired ten percent packet loss) with a status value of the switch (the counter number for each sequence) (col. 4 lines 55-59 and 62-66) ; and
- (d) determining whether to discard the packet according to the limit value comparison (col. 4 lines 66-67 and col. 5 line1).

In regarding to claim 10, the claim is rejected for the same reasons as claim 1 because the method steps of claim 1 can be used in the apparatus in Claim 10.

Regarding claim 19, Levay teaches a computer-readable memory storing a program (logic) for directing a computer to perform the method steps in claim 1 (claim 18).

3. Claims 1-3, 6-8, 10-12 and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Aweya et al. (U.S. Patent No. 6,961,307 B1).

Regarding claims 1 and 10 (only differs in statute classes), Aweya teaches a method for selectively discarding packets at a packet switch arranged to handle packet traffic in a network, the method comprising the steps of:

- (a) building an index ("classify") for an arriving packet (col. 5 lines 32-34);
- (b) accessing a location in a memory array according to the index to read at least a limit value ("no-drop" threshold "L", by default, the value has to be stored in a memory) from the location (fig. 7(A); step E10; col. 10 lines 11-12);
- (c) comparing the limit value ("no-drop" threshold "L") with a status value of the switch (the actual queue size q) (fig. 7(A); step E20; col. 10 lines 12-14) ; and
- (d) determining whether to discard the packet according to the limit value comparison (fig. 7(A); col. 10 lines 14-25).

Regarding claims 2 and 11(only differs in statute classes), Aweya further teaches that in step (b), a probability value (it is calculated by the packet drop controller 30, and provided to the drop decision module 40 in fig. 1) is also read from the location in the memory array (by default, the value has to be stored in a memory) and, in step (d), if it is determined that the packet should be discarded (after step E20 in fig. 7(A) and q is $>$ and $= L$), then the method comprises the additional steps of: (e) comparing the probability value with a random value (generated by the random number generator 43) (fig. 7(A); step E40; col.10 lines19-20); and (f) discarding the packet according to the probability value comparison (col.10 lines21-26).

Regarding claims 3 and 12 (only differs in statute classes), Aweya further teaches that the method comprising the additional step of discarding the packet according to the limit value comparison (F10 in fig. 7(A)).

Regarding claims 6 and 15 (only differs in statute classes), Aweya further teaches that the status value of the switch (the actual queue size q) is read from a hardware register of the switch (from data buffer 20 in fig. 1; col. 5 lines 63-65).

Regarding claims 7 and 16 (only differs in statute classes), Aweya further teaches that the status value of the switch is one of an ingress port current consumption value, a destination threshold group current consumption value (the actual queue size q), and a current global fabric fullness value.

Regarding claims 8 and 17 (only differs in statute classes), Aweya further teaches that the probability values are determined according to a scheme with a random event aspect to avoid traffic congestion (col. 2 lines 40-52 and col. 7 lines 37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 18-21, 24 and 25 or 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aweya et al. (U.S. Patent No. 6,961,307 B1)

Regarding claims 9 and 18 (only differs in statute classes), Aweya differs from the claimed invention in that Awewa does not specifically teach that the random value is based on a timer value of the packet switch. Rather, Aweya teaches that the random value is generated by the random number generator 43 (col. 10 lines 17-18).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any kind of random number as long as it provides an easily available quickly changing number that appears random for the purposes, where the claimed differences involved to the substitution of interchangeable or replaceable equivalents and the reason for the selection of one equivalent for another was not to solve an existent problem, such substitution has been judicially determined to have been obvious. *In re Ruff*, 118, USPQ, 343 (CCPA 1958). This supporting is based on a recognition that the claimed difference exist not a result of an attempt by applicant to solve a problem but merely amounts to selection of expedients known to the artisan of ordinary skill as design choices.

In regarding to claims 19-21, 24, and 25 or 26 the claims are rejected for the same reasons as claims 1-3 and 8-9. It is with the level of one skilled in the art to implement the method as software or computer program instructions (logic). It would have been obvious to one of ordinary skill at the time of the invention to store the

Art Unit: 2665

computer program instructions on a computer readable medium so they are executable on a processor.

5. Claims 4-5, 13-14 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aweya et al. (U.S. Patent No. 6,961,307 B1) in view of Lin et al. (U.S. Patent No. 6,463,068 B1).

Regarding claims 4 and 13 (only differs in statute classes), Aweya differs from the claimed invention in that Aweya does not specifically teach that the index ("classify") is built by concatenating bits read from a plurality of parameters relating to header information in the packet and status information of the packet switch. However, it is well known in the art that the packet classification is based on the information contained in the packet header. For example, Lin, from the similar field of endeavor, teaches that the packet classification is based on the class of service contained in the packet header (col. 3 lines 14-17 and 33-44). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include concatenating bits read from a plurality of parameters relating to header information in the packet and status information of the packet switch, as taught by Lin in the assembly of Aweya in order to classify the packets according to the service requirements.

Regarding claims 5 and 14 (only differs in statute classes), the modified assembly of Aweya and Lin further teaches that the parameters include one or more of

Art Unit: 2665

an Ingress Port Identifier, a Packet Class of Service ("class of service"), a Threshold Group Number, a Global Fabric Fullness, and an Ingress Port Usage.

In regarding to claims 22-23, the claims are rejected for the same reasons as claims 4-5. It is with the level of one skilled in the art to implement the method as software or computer program instructions (logic). It would have been obvious to one of ordinary skill at the time of the invention to store the computer program instructions on a computer readable medium so they are executable on a processor.

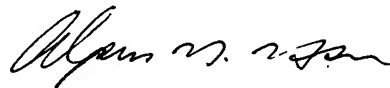
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lina Yang whose telephone number is (571) 272-3151. The examiner can normally be reached Monday through Wednesday between 7:00 a.m. and 8:00 p.m. eastern standard time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**ALPUS H. HSU
PRIMARY EXAMINER**